# The Chemical

Index to Volume XXI. July-December, 1929

Acetate Products Corporation, 240
Acetic Acid Production in Germany, 208
Acetonedicarboxylic Acid as a Leavening
Agent; Edwin O. Wilg, 469
Acid-Resisting Materials, 187, 190
Advertising Convention, International,
143, 149
African Nitrate Discovery, 102, 110
Alkali Inspector's Report, 101, 104, 123,
127

African Nitrate Discovery, 102, 110
Alkali Inspector's Report, 101, 104, 123,
Alkali Trade of Norway, 30
Alsatian Potash Production, 319
Aluminium Sulphate Production in
Mexico, 342
Amber Deposits in Manitoba, 100
American Chemical Bibliographes, 310
American Chemical Bibliographes, 310
American Chemical Society and Chemical
Warfare, 343
American Institute of Chemical Engineers, 108
America's Bid for Foreign Chemical
Markets, 215
Anmonium Sulphate; Consumption in
Italy, 184
Ammonium Sulphate: Japan's New
Process, 210
Ammonium Sulphate: Japan's New
Process, 210
Ammonium Sulphate Prices, 79
Ammonium Sulphate Prices, 79
Ammonium Sulphate, 26
Analysis of Gas Mixtures, 26
Analysis of Gas Mixtures, 26
Analysis of Gas Mixtures, 26
Analysis Chemical Industry, 18, 74
Asbestos Fusion—Turner and Newall
Acquire Rhodeslan Industry, 18, 74
Asbestos Fusion—Turner and Newall
Acquire Rhodeslan Chemical Manufacturers, 67, 76, 617
Association of British Chemical Manufacturers, 67, 76, 617
Association Chemical Merger, 19, 28, 173, 228
Authors—

## Authors-

Alexander, Brig.-Gen. Sir William; British Chemical Industry in 1929,

Alexander, Brig.-Gen. Sir William; British Chemical Industry in 1929, 588
Allison, F. E.: Cyanamide and its Uses, 401
Benn, Sir Ernest: Scandinavia as a British Market, 448
Brightman, R.: The Problem of the Salaried Inventor, 399
Dreaper, W. P.: Science and Legislation, 447
Dyson, G. Malcolm: Basic Industrial Minerals, No. VIII, Ultramarine, 255
Furness, Rex: Acid-Resisting Products for Chemical Plant, 199
Han, John E. S.: Monosodium Glutamate as a Chemical Condinuent, 350
Hooley, L. J.: British Dyestuff Industry in, 1929, 603
Maxted, E. B.: The Nitrogen Industry in 1929, 596
Parrish, P.: Conditions in the Heavy Chemical Industry in 1929, 611
Pratt, J. Davidson: British Chemical Industry, A Review of the Year, 592
Reavell, J. Arthur: Progress among Chemical Plant Manufacturers, 608
Reavell, J. Arthur: Elimination of Sulphur Compounds from Flue Gases, 103
Stine, C. M. A.: Use of Power in Chemical Industries, 237
Thorpe, J. F.: The Synthetic Chemistry of the Future, 235
Tritton, F. J.: Chemistry in the Printing Trade, 470
Watson, Sir David Milne-: Recent Progress in the Gas Industry, 591
Wils, Edwin O.: Acetonedicarboxylic Acid as a Leavening Agent, 469

## В

Bailey, Dr. T. L., Retirement of, 403, 437, 439
Barium Derivatives in the U.S., 302
Basic Industrial Minerals: No. VIII, Ultramarine; G. Malcolm Dyson, 255 Battersea Power Station, Proposed, 504 Beet Sugar Industry, 310
Belgian Drug Trade Merger, 404

Benn Brothers, New Directors of, 567 Benzole Developments, International, 417

Severable Producers, International, 417
Benzole Producers, International Conference of, 562
Benzyl Alcohol, 216
Berlin Power Conference, 417
Beryllium from Manitoba, 344
Beryllium Oxide, Pure, from Beryllium Ore, 330
Billingham Developments, 174, 540
Billingham University: Work of the Mining Research Laboratory, 169
Birmingham's Research Laboratory, 66
Brazilian Monopoly in Carnauba Wax, 140

British Association, 80 British Association of Chemists, 471, 527,

British Celanese, Ltd., 259
British Celanese, Ltd., 259
British Chemical Industry in 1929;
Brig.-Gen. Sir William Alexander, 588
British Chemical Industry: A Review
of the Year 1929; J. Davidson Pratt,
592

592
British Chemical Plant Manufacturers
Association, 618
British Cotton Research Association, 303
British Dishinfectant Manufacturers Association, 618

British Dismectant Manuscher Lation, 618
British Engineering Standards Association, 436, 475, 619
British Glues and Chemicals, Ltd., 66
British Industries Fair, 7, 109, 433, 449,

British Industries Fair, 7, 109, 433, 449, 548 563
British Metal Corporation and Henry Gardner and Co., Ltd., Fusion of, 358
British Oxygen Company, 64
British Sulphate of Ammonia Federation, 463, 465
Bromine Recovery in Alsace, 625
Bromine Recovery in Alsace, 625
Butyl Alcohol, In France, 384
Butyl Alcohol, Uses of, 109

## C

Cadmium, The Sources of, 309
Calcium Carbide, The Manufacture of,
356
Camphor, British, Trade, 42
Canadian Ammonium Sulphate Exports
to the East, 100
Canadian Chemical Industries, 40, 72,
124, 174
Canadian Explosives, Ltd.: New Plant
for Manitoba, 309
Canadian Industries, Ltd., Development of, 404
Canadian Sait Production, 81
Canadian Soil Improvement Campaign,
62

Canadian Soil Improvement Campaign, 62
Canadian Tariff Changes, 115
Canadian Wood Distillates and Extracta
Industry, 131
Carbide Industry, 162
Carbon Black Export Association,
United States, 547
Carbon Monoxide, Tests for, 397
Cellulose in the Paper Industry, 501
Chandler Medal awarded to Dr. Langmuit, 569
Chemical and Allied Societies: Their
work during 1929, 619
Chemical and Wood Industries, Ltd., 131
Chemical Engineering Examinations, 82
Chemical Engineering Group, 275 325,
332, 349, 384

332, 349, 384 Chemical Industry Club, 398, 403, 424,

Chemical Industry Club, 398, 403, 424, 619
Chemical Society, 416, 620
Chemical Standard Bronze "A," A New British, 148
Chemical Statistics, 170
Chemical Statistics, 170
Chemical Statistics, 170
Chemical Warfare Research, Rumoured Restriction of, 346
Chemistry and Plant Diseases, 528
Chemistry and Plant Diseases, 528
Chemistry of the Empire, 221
Chemistry, The Profession of (Pilcher), 449
Chemista' Club, How to Run a, 520
Chemista' Club, New York, 276
China Clay Works on Dartmoor, 413, 572
Claude Process, The, 624

Claude Process, The, 624

Clay, Dewstering, by Electrophoresis, 376 376 Clays, Ball: Their Nature and Uses, 145 Coal Gas Suicides, 529 Coal, Hydrogenation of, 169 Coals, Washington, High Nitrogen Con-tent of, 389

Coals, Washington, High Nitrogen Con-tent of, 389
Coke-Oven Gas Utilisation in Industry, The Economics of, 404
Coke Oven Gas, Chemical Utilisation of,

Coke Oven Managers' Association, 422 Colonial Chemical Developments, 165 Colour Testing and Fastness to Light,

Colour Users' Association, 604

## Commercial Intelligence

Gray, Dell and Co., Ltd.: Voluntary Liquidation, 6
Misell, D. and J.: Discharge from Bankruptey, 528, 577
Portland Cement and Limestone Products, Ltd.: Meeting of Creditors and Shareholders, 577
Smith. Frank: Bankruptey Proceedings, 120
Western Viscose Silk Mills, 132
Whipman, Philip: Bankruptey Proceedings, 120
Zine Oxides, Ltd.: Voluntary Liquidation, 151
ouveying Chemicals with Portable

Conveying Chemicals with Portable Loaders, 125

### Correspondence-

British Tar for Roads (Thorne), 376
British Tar for British Roads (Croft),
353
Chemical Salesmanship (Rhodes), 445
Chlorophyll in Peat (Nierenstein), 53
Gold Medal for Textile Chemistry
(Mullin), 473
Rationalisation of Chemical Societies
(Rhodes), 402
Refrigerant Fumes, Deaths from
(Henning), 148
Science Party, A (Rhodes), 565
"Silicosis" (Campbell), 53
Spinoza and Transmutation (Nierenstein), 257

stein), 257
Tar, British, or Foreign Bitumen (Collins), 503
Tar and Industry (Nicholson), 445
Wochenals? What of the, 565

Cotton Research Association, The, 557 Czechoslovakian Coal Tar Industry, 239

Dead Sea Potash, 418, 425, 582
Department of Scientific and Industrial Research: Advisory Council, 236; Secretaryship, 304
Diseases of Chemical Workers, 122
Drag Scraper Conveyors, 220
Dyes, Fast, The Use of, 472
Dyestuff Imports by Sample Post, 110
Dyestuff Industry, British, in 1929;
L. J. Hooley, 603

## Dyestuffs Supplement-

Boiler Explosion, Report on, 18 British Colour Council, 17, 25, 33

## Dyestuffs Supplement-continued

British Synthetics and Naphthol Products, 1 Chlorobenzenes and their derivatives, 29

Claim before Mixed Arbitral Tribunal, Colour Radiation of Organic Compounds, 18
Colours, Lake, The Fastness of, to
Light: S. T. Kinsman, 43
Colour Users' Association Annual

Colour Users' Association Annual Meeting, 3 Colours, New, 9, 17, 33 Diazo Compounds, The Discovery of,

Diago Compounds, The Discovery of, 17

Dye Cartel and Dye Exports, 31

Dye Cutting the Cost of a, 40

Dyers' Wages, 40

Dyers' Wages, 40

Dyes and their Application: L. J.

Hooley, 5, 15, 23, 30, 39, 47

Dyes, Optically Active, 26

Dyestuff Licences, 2, 10, 18, 26, 38

Dyestuffs Act, The, 1

Dyestuffs Agreement, The International, 18

Dyestuffs: How They are Made, 9

Dyestuffs: How They are Made, 9

Dyestuffs Colouring Practice in Canada and the United States: L. Whinyates, 27

yates, 27 German Chemical Society's Fastness

yates, 27
German Chemical Society's Fastness
Commission, 12
Griess Centenary, The, 17
Icyl Blue, R.S., 41
Indigosols in Textile Printing, 33
I.G. and Scandinavian Dyestuffs
Market, 18
Italian Dyestuff Industry, The, 48
Italian Dyestuff Industry, The, 48
Italian Dyestuff Industry, The, 48
Italian Intermediate and Dye Industry, 2
Japanese Dyestuffs Expansion, 18
Leather, Fast Colours on, 19
Iight as a Research Weapon, 28
Mullin, Professor, Visit of, 10
Mullin, Dr., A French Degree for, 42
Patent Action, The Great, 41
Perspiration Effects, The Study of, 42
Rare Textile Museum, 34
Rayon, A Text-Book on, 2
Robinson, Mr. E. G., 34
Scottish Dyes, Ltd., The Story of, 35, 42
Spring Shades, 41

Scottish Dyes, Ltd., The Story of, 35, 42 Spring Shades, 41 Sutcliffe Smith, Sir Henry, Address by, 1 Swiss Industry Prospering, 18 Tone, Change of, 42 U.S. Dye Exports Increase 45 U.S. Dyestuffs Imports, 34 U.S. Light-Fastness Report, Third, 2 Wool Dyeing, 33, 38 Woollen Goods, The Laundering of, 37

D.S.I.R., Chemical Researches under-taken by the, 599

## Editorial Articles-

Editorial Articles—

1929: A Year of Progress, 586
Acid-resisting Materials, 187
Acid-resisting Materials, 187
Advertising, Creative, 143
Advertising Pays, 44
African Nitrate Discovery, 102
Alkali Works Problems, 123
American Chemicals, Marketing, 213
Australian Merger, The, 19
Bailey Dr., Retirement of, 437
Benn Brothers' Jubilee, 144
Benzole Conferences, European, 562
Benzole: International Developments, 417
Berlin Power Conference, 417
"C.A." Annual Review Number, The, 542
Canadian Chemicals, Progress of, 124
Carbon Monoxide, Tests for, 397
Chemical Engineering Data, 166, 275
Chemical Engineering Data, 166, 275
Chemical Engineering Progress, 214, 488
Chemical Engineers, The Training of, 561
Chemical Industry Club, 398

Chemical Industry Club, 398

Editorial Articles Chemical Literature, Abstracting, 234 Chemical Works Conditions, 101 Chemiste' Club, New York, 276 Chilean Nitrate Production Limita-tion of, 522 Colonial Chemical Developments, 165 Cotton Research, 303
Dead Sea Potash, 418
D.S.I.R. Secretaryship, 304
Explosives, The Freezing Point of, 124 124
Factories and Workshops, 102
Faraday's Diaries, 464
Farm, The Chemistry of the, 1
Fertiliser Agreement, The, 253
Fertiliser Prices, 303
Filtration in Modern Industry, 487
Flotation Processes, Reagents for, 2,
44 Flotation Fronces, 371
44
Fuel Research Progress, 371
Gas Mains, Leakages from, 188
German Chemical Industry, 144
Glassware, Merchandise Marks for, Government Department of Science, H. G. W. on Lord Melchett, 214 Law and Power Station Fumes, The, Levinstein, Dr., on Chemical Patents, 323 Low Temperature Pithead Plant, A, 20 Manchester Meeting, The (S.C.I.), 19 Manchester Meeting, The (S.C.I.), 19, 43
Mergere, American Opinion on, 188
Methylated Spirit Regulations, 254
New Chemistry, The, 372
Nitrogen Industry, The, 372
Nitrogen Industry, The Future of the, 463
Nobel Prizes, 438
Oil from Australian Lignite, 233
Parliamentary Science Group, 541
Patent Action, A Great, 463
Patent Literature, Changes in, 348
Patent Office Salaries, 372
Perkin, W. H., 1860-1919, 254
Physicists, Not Enough, 541
Poctry in the Dychouse, 213
Radium Supplies, 304
Rationalisation, A Discussion on, 347
Rationalising the Chemista Themselves, 542
Reparations, 214
Repetitive Work: Is 14 Dull 9 102 selves, 542
Repetitive Work: Is It Dull? 102
Research Salaries, 324
Safeguarding, The Future of, 2
Sewage, The Analysis of, 324
Slosson, Dr. E. E., 418
Sulphate Prices, 562
Sulphate Process, A New By-Product,
397
Tizard Mr. Deposition of 52 Tizard, Mr., Departure of, 68

Trade: Autumn Prospects, 275 Trade, Overseas Chemical, 44, 143, 437, 561 437, 561
Trade, Colonial Chemical, 67
Trade Returns for August, 253
Trade, Chemical, Recovery, 347
United Chemical Manufacturers, 67
U.S.A. and Chemical Cartels, 166
Wood Preserving Association, A, 487, 522, 523 Worker-Capitalist, Creating the, 464

Worker-Capitalist, Creating the, 464
Ehrhardt, Dr., 109
Electrolytic Zinc Co., 584
Electro-Comosis, The Purification of
Water by, 305
Empire Marketing Board, 178
English China Clays, Ltd. — New
Acquisitions, 310
Explosives, The Freezing Point of, 124
Explosives: Report of H.M. Inspectors, 86

Explosives Manufacture in Canada, 230

Factories and Workshops, Report on, 102, 128
Fairs and Exhibitions, Conference on International, 520
Faraday Society, 620
Farriliser Agreement, 253
Fertiliser Industry, British Synthetic, Fertiliser Industry in Canada, 7, 416
Fertiliser Manufacturers' Association, 620 620
Fertiliser Plant, New Synthetic, 298
Fertiliser Production in Jugoslavia, 40
Fertilisers for the Sugar Industry, 520
Fertilisers, Nitrogenous, in Australia, 198
Filtration, The Science and Practice of, 489
Fine Chemical Industry, The, 567
Fire Extinction, Research on, 85
Flotation Processes, Reagents for, 2
Food and Drugs Acta, 625
Formic Acid, The Production of, 238
Franco-German Caustic Potash Cartel,
518

YAAABIJ DIJBUS

HOM THORTS

Fuel Research Board Report, 371, 373 Fuel, Smokeless, 527 Fuller's Earth, Uses of, 370 Fumes from Power Stations, 504

## G

Gases, Amesthetic, Conveyance of, 339 Gases, Compressed, as Airship Fuel, 358 Gases, Flue, Elimination of Sulphur Compounds from; J. Arthur Reavell, 103 Compounds from; J. Arthur Reavell, 103
103
103
Gases, War, Peace Uses of, 548
Gas Fires and Their Settings, 382
Gas Industry, Recent Progress in the;
Sir David Milne-Watson, 590
Gas Mains, Leakages from, 188
Gas Mixtures, Accurate Analysis of, 26
Gas Poisoning, Committee on, 334
Gas Poisoning, Committee on, 334
Gas Poisoning, Committee on, 334
German Chemical Industry, The, 144
German Coal Tar Cartel, 563
German Interests Abroad, 173
German Lacquer Production, 18
German Match Monoply, 384
German Potash Industry, Concentration
in, 422
German Wood Distillation Industry, 94
German Synthetic Ammonia Plant,
New, 538
Gillett, Mr.: Minister for Overseas
Trade, 53
Glasgow University, Chemistry at, 569
Glass Making, Cullet in, 546
Glass, Bare Earth Elements in, 119
Gluckstein, S. M., Memorial Lecture,
262, 506
Gold in Gum Sample, 333
Gold, Synthetic, 232
Government Chemist, Report of the,
261
Government Department of Science, 371
Graesser-Monsanto Chemical Works, 261
Government Department of Science, 871
Graesser-Monsanto Chemical Works,
Ltd., 164, 584
Griess, Peter, Manchester Paper on, 473
Gulf Stream. Claude's Attempt to
Utilise Energy of, 547
Gum in Petrol, 334

### H

Harden, Dr. Arthur, 441
Heavy Chemical Industry in 1929:
P. Parrish, 611
Helium, U.S. Production of, 290
Hopkins, Sir Frederick Gowland: Nobel
Prizeman, 419
Huddersfield, New Plant for Sewage
Works at, 383
Hull Public Analyst's Report, 262
Hydrochloric Acid, Production of, 172
Hydrogen Sulphide, Poisoning by, \$25

I.G. Farbenindustrie, 11, 506 Illustrations-

Acid Chamber, Repairing an, 167 Acid-Proof Chemical Stoneware, 1 Alexander, Brig.-Gen. Sir Willi

Add-Froot Chemical Stoneware, 191
Adalexander, Brig.-Gen. Sir William, 589
Bailey, Dr. T. Lewis, 439
Benn, Mr. J. A., Marriage of, 69
Brotherton, Lord, 277
Darby, W. J., 281
Harden, Dr. Arthur, 441
Holliday, Major L. B., 278
Hopkins, Sir F. G., 419
I.C.I. Agricultural Research Farm, 3
Imperial Chemical House, Main
Entrance Doors, 189
John Benn Hostel Swimming Bath
Filtration Plant, 491
Lewis. Professor G. N., 447
Melchett, Bt. Hon. Lord, 597
Pickard, J. A., 489
Planck, Professor M., 447
Pratt, J. Davidson, 593
Princeton University: Group of
Chemists, 325
Reavell, J. Arthur, 605
Rideal, The late Dr. Samuel, 525
Rausby, Professor H. H., 334
Smith, Br. F. E., 333
Smith, Sir H. Sutchiff, 277
Society of Chemical Industry, Manchester Meeting, 47
Thorpe, Professor J. F., 601
Watson, Sir David Milne, 591
Imperial Smelting Corporation, Ltd., 239

Imperial Smelting Corporation, Ltd., 239 Imperial Chemical Industries, Ltd., 1, 3, 29, 174, 186, 197, 219, 332, 333, 425, 476, 486 Imperial College of Science, 572 India, Chemical Activities in, 74

Indian Chemical Notes, 27, 355 Indicators and their applications, 462 Industrial Research Associations, 331 Industrial Research: Dr. F. A. Freeth,

420 Institute of Brewing, 621 Institute of Chemistry, 383, 420, 449 506, 621

Institute of Chemistry, 383, 420, 449 506, 621 Institute of Fuel, 288, 404 Institute of Metals, 91, 152, 238, 621 Institution of Chemical Engineers, 6, 82, 126, 214, 421, 501, 543, 566, 622 Institution of Petroleum Technologists, 334, 623 Institution of Petroleum Technologists, 18titution of the Rubber Industry, 546 International Superphosphate Manufacturers' Association, 621 Inventions, A Review of the Chemical, for the year 1929 Jodine from Seaweed, 40 Iodine, Research on, 630 "Isomerie" Hydrogen Molecules, 240 Italy, Economic Situation in, 79

Japanese Imports of Fertiliser Materials, Japanese Nitrogen Situation, 42

## 16

Kauri Gum in New Zealand, 252 Kekule, August, Centenary of, 473 Kelp Industry, Suggested Revival. 132 "Konel"—Platinum Substitute, 307 "K.S.G." Low Temperature Carbonisation 991

L

"L. and N." Activities in Australia, 15 Lautaro Nitrate Co., 274

Legal Intelligence-

egal Intelligence—
British Acetate Silk Corporation;
River Pollution, 376
Brown, James M. v. Fenner and
Alder, Ltd., 571
Burnside, Reginald Charnley r. Chemical and Metallurgical Corporation, Ltd., 445
Bush and Co., W. J.: Summoned for Smoke Nuisance, 331
Dominion Tar and Chemical Go., 7
Ehrhardt and Sehmer e. A. H. Lynn, 539

Dominion Tar and Chemical Go., 7
Ehrhardt and Sehmer e. A. H. Lymn, 539
Farnworth, A. e. Corporation of Manchester, 29, 66
Fawcett (Darlington), Ltd., J. Dawson: Petition for Compulsory Liquidation of Portland Cement and Limestone Products, Ltd., 384
Ferns Pure Milk and Cream Co., Ltd., 7
Prosecution under Artificial Cream Act, 151, 262
Freshwater, W. F. v. British Acetate Silk Corporation, Ltd., 122
Gallagher and Son, M., v. Harrington Bros., Ltd., 404
Gerwerkschaft Victor v. Concordia Berghau Gesellschaft, 422
Imperial Chemical Industries, Ltd. v. I.G. Farbenindustrie Aktiengesellschaft, 458, 463, 468, 505, 524, 544, 598, 624
Masurier, Albert Edward Le v. E. A. Old and S. Meider, 7
North British Artificial Silk, Ltd. v. Tokenhouse Securities Corporation, Ltd., 506
Parke Davis, Ltd. v. Bowden, 100
Rex Research Corporation, Ltd., Le
Fly Tox Société Anonyme and Tib Producte (International), Ltd., 508
Standfield, John: Wrongfully Obtaining Credit, 274
Lever Brothers-Margarine Union Amalgamation, 240, 262.

Lever Brothers-Margarine Union Amalgamation, 240, 262. Lever Brothers, New Headquarters for,

Liebig Museum, The, 271 Lignite Briquetting Industry in Sas-katchewan, 180 Lignite Discoveries in Northern Ontario, 322

322
Lime as a Flotation Reagent, 44
Little, Dr. A. D., Dinner to, 6
Locust Beans in the Textile Industry, 383
Low-Temperature Carbonisation Gas, 307
Low-Temperature Carbonisation, 288, 436
Low-Temperature

"K.S.G.," 221

Low-Temperature Carbonisation of New Zealand Coals, 96 Low-Temperature Coke as Powdered Fuel, 389 Luton, New Chemical Works at, 402

Malaya, British Trade in, 28, 73
Medicines, Proprietary, The Sale of, 442
Merchandise Marke Act, 39, 188, 196, 460
Mercury Fumes, Protection Against, 384
Mercury in New Zealand, 129
Mercury Production in U.S., 219
Mergers, American Opinion on, 188
Metallised Paper, 150
Metallisation Process for Spraying of
Metals, 381

Metallurgical Section-

Acid-Resisting Steel Plant, The Fabrication of; Dr. W. H. Hatfield, 31 Alloys of Aluminium, Some, 20 Aluminium and its Alloys, Protecting from Corrosion, 39 Aluminium, Protective Coatings for,

36
Aluminium, Some Alloys of; G.
Malcolm Dyson, 1
American Fellowship for British
Investigator, 12
Annealing, Bright, Technical Limits

Investigates and the state of t

Blast Furnace Practice, 12, 41
British Association Meeting, 12
Cementation as a Corrosion Protective, 20 chromium and Titanium Nitrides, 4 Chromium Alloys, Estimating Iron

in, 19 Cobalt Output in Canada, 42 Copper-Aluminium Alloys, Complex, 35

35 Copper and Lead Precipitation by Sponge Iron, 13 Corrosion Research Report, 4 Crucibles for High Temperature Work,

Cuprous Oxide, Reduction of, by Carbon Monoxide, 13 Detinning Processes, 27 Diffusion of Gases through Metals, 20 Duralumin in Aeronautical Engineer-ing, 12 ing, 12 usseldorf, Congress of Metallurgists

at, 5
Ebbw Vale Steel Works, 28
Electrolytic Zine Co. Developments,

Electroplaters and Depositors Society, The, 4, 41 Electroplating Plant, Notes on, 5 European Steel Cartel, 36 Gas Producers for Metallurgical Fur-

European Steel Cartel, 36
Gas Producers for Metallurgical Furnaces, 36
German Cyanide Caschardening Regulations, 42
Hardness Testing, 19
Industrial Furnace Technique, 13
Institute of Metals, 28
International Congress on Mines,
Metallurgy and Applied Geology, 41
Iron and Steel Industries: Government Committee on, 12
Iron and Steel Manufacturers Federation, 13
Iron, Chemically Pure, 27
Iron, Pure, 21
Iron, Wrought, Determination of Slag
and Oxides in, 3
Lead Smelting, 20
Lithium: Its Extraction, Properties
and Uses; G. Malcolm Dyson, 25
Magnesium, 4
Metalin Sea Water, Preservation of, 42
Metaliurgical Waste, 27
Minerals, The International Relationship of, 9
"Natural" Chromium-Mickel Steels,
21
Nickel, Bureau of Information on, 5

"Natural" Chromium-Nickel Steels, 21 Nickel, Bureau of Information on, 5 Nitrogen-Hardening of Steel, 4 Phosphor Bronze, B.E.S.A. Specifica-tion for, 35 P.M.G. Metal, 34 Rare Metals, The, 36 Rolling Mill Practice, 41 Roumanian Colnage, Contract for, 42 Segregation in High Carbon Steel, 28 Steam, Gas and Electric Heating, 5 Steam, Gas and Electric Heating, 5 Steam, Gas and Electric Heating, 5 Steel, Abnormality in Case-Carburised, 21

21 Steel "Failures" and Margins of Safety, 21

# Metallurs

St

Steel in Build Secretary Steel in Secretary Secreta Tin Spraying, 28
Uniformity in Materials and Distribution, 12
Zine and Gold: Figures of Production,

Metals Coating Co., Ltd., 468 Methylated Spirit Regulations, 254 Methyl Chloride Poisoning, 353 Minerals, Non-Metallic, Information on, 370

370

Mond Nickel Co., 259, 584

Monsanto Chemical Works Amalgamate with Merrimac Chemical Co.,

Monsodium Glutamate as a Chemical Condiment: John E. S. Han, 350 Mont Cenis Nitrogen Fixation Process, 199 Montecatini Control of Italian Lithopone

Production, 318
Mount Lyell Co.'s Chemical Interests, 300
" Movie-Tones," Publishers and, 195
Murex Acquisition, 525
Muspratts, The, and Liverpool, 85

## N

National Benzole Association, 623 National Sulphuric Acid Association, Newton Chambers and Silkstone Coal Newton Chambers and Silkstone Coal and Coke Co., 436 Nitrate Position, The, 475 Nitrate Prices for U.S.A., New, 207 Nitrate Prices for U.S.A., New, 207 Nitrate Producers Association "Safety Competition," 309 Nitrate Production Restriction, 548 Nitrocellulose Lacquers Industry, 217 Nitrogen Fixation Industry in Japan, 308 308 Tracton Industry in Japan,
308 Nitrogen Industry in 1929: E. B.
Maxted, 596
Nitrogenous Fertilisers, Netherlands
Consumption of, 484
Nitrogen Products, Synthetic, in America, 355
Nitrogen Products, Synthetic, at Rjukan,
353
Nobel Prizes, 438
Non-Ferrous Metals in Chemical Engineering, 379
Norsk-Hydro Developments, Notes on,
252 252 North-East Coast Exhibition, 132

# o

## Oblinary-

Biau, Dr. Fritz, 573
Brendel, Dr. Carl, 573
Buttercase, T. D., 571
Bythway, Mrs., 175
Cooke, Arthur, 200
Crabtree, R. W., 405
Couning, W. H., 291
Dee, Thom. J., 405
Docherty, 600
Docherty, 600
Docherty, 673
Exell, Edmund Charles, 477
Fairs, John Thomas, 385
Fitzgerald, Francis A. J., 573
Francis, G. B., 530
Gibson, T. S. F., 222
Gooch, Professor Frank A., 241
Hartley, John A., 426
Hartshorne, E., 451
Herbig, Professor Walter, 111
Hoegger, Adolph, 175
Hopper, A. G., 222
Horstmann, Professor JA. F., 359
Jerwitz, Dr. Willy, 31
Kenworthy, Major A. R., 153
Kingsley, H., 451
Kummer, Dr. W. G., 311
Lawrence, George W., 385
Lewin, Dr. Louis, 549
Lindet, Professor L., 8
Matthies, Dr. Otto, 426
Moore, Frederick, 175
Ohlischlaeger, Dr. Walter, 241
Oppenheimer, Dr. Hermann, 608
Perkin, Professor W. H., 257
Pictet Raoul Pierre, 155

## Obituary-continued

bituary—continued
Rideal, Dr. Samuel, 507
Schryver, Dr. S. B., 169
Smith, Richard Tilden, 573
Swann, Edward, 530
Thompson, Arthur J., 385
Toller, Charles B., 31
Turner, A. Burton, 451
Twitchell, Dr. Ernest, 150
Welsbach, Auer von, 131
Wenger, L. J., 477
White, G. F., 405
Williams, John, 359
Wood, Professor Thomas B., 451
Zsigmondy, Professor R., 291

asignonay, Protessor R., 291
Oil and Colour Chemists' Association,
354, 526, 570, 623
Oil from Australian Lignite, 233
Ontario Lignite Discovery, 412
Organic Chemistry, The Relation of, to
Biology, 80

Paint Tests and their Interpretation, 354 Palestine Potash, Ltd., 425 Parliamentary Science Group, 44 Parliament, Chemical Matters in, 30, 54, 86, 110, 425, 450, 476, 507, 529, 548

### Patent Specifications

Accelerators, Vulcanisation, 337
Accelerators, Vulcanisation, 337
Acenaphthene, Oxidation of, 510
Acetaldehyde from Acetylene of
Gaseous Mixtures Containing It,
Production of, 9, 89, 407
Acetic Acid, 90, 244, 295, 362, 387
Acetic and other Aliphatic Acids, 575
Acetone, Manufacture and Production
of, 89
Acetylmethylea-bird, Directylmethylea-bird, 1

Acetylmethylcarbinol; Diacetyl, 244 Acid Amides, Production of Esters

Acid Amides, Production of Esters from, 33 Acids, Aliphatic, Manufacture of, 58 Acids and Esters, Aliphatic, Manu-facture of, 361 Acids, Aromatic Hydroxy, Separation, Isolation and Purification of, 223 Acids, Monocarboxylic, Production of, 177, 179 Alcohols, Etherified Polyhydric, and Derivatives thereof, Manufacture of, 293 Alcohols, Primary, Manufacture of, 575

Alcehols, Primary, Manufacture of, 575
Alcohols, Sulphonated, 338
Aldehydes and Alcehols, Manufacture of, 33
Aldehydes, Aromatic Hydroxy, Production of, 265
Aldehydes, Aromatic Hydroxy, Separation, Isolation and Purification of, 361
Aldehydes, Hydrogenation of, 202

of, 361 Aldehydes, Hydrogenation of, 202 Aldol or Crotonaldehyde, Production

Aldelor Crotonsidehyde, Production of, 57
Aldolor Crotonsidehyde, Production of, 57
Alkali Cyanides, Manufacture of, 223
Alkali Hydroxides, 9
Alkali Hetal Oxides, Compositions Containing, 294
Alkali Hosphates and Ammonium Phosphates, Production of, 532
Aluminium, Chemically Active Anhydrous Oxide of, Methods for Obtaining, 428
Aluminium Chloride free from Iron, Manufacture of, 243
Aluminium Salt Solutions, Purifying, by Electrolysis, 429
Aluminium Sulphate, Production of, 9
Amines, 224, 338
Amines, Secondary Aromatic, 10
Amino Alcohols, 178
Amino Compounds, Nitrated Aromatic Manufacture of, 387
Amino Privatives, 428
Ammonia and Ammonium Sulphide 58
Ammonia Solutions, Treating, 136
Ammonia. Synthetic, 34

Ammonia and Ammonium Sulphide 58
Ammoniacal Solutions, Treating, 136
Ammonia, Synthetic, 34
Ammonia, Synthetic, 34
Ammonia, Synthesising, 224
Ammonium and Sodium Phosphates
294
Ammonium Carbonate, Process for the Production of, 388
Ammonium Dhosphate, 266
Ammonium Salta, 156
Ammonium Sulphate; Sulphur, 224
Anhydrides, Allphatic, Manufacture of, 57, 337
Anhydrides, Alkoxy Allphatic, Manufacture of, 57, 37
Anhydrides, Alkoxy Allphatic, Manufacture of, 265
Anthraceuc, 576
Anthraquinone and Its Derivatives, Froduction of, 552
Anthraquinone, Basic Derivatives of, 243

### Patent Specifications-continued

Anthraquinone Derivatives, 178
Anthraquinone Derivatives and Their
Application in Dyeing, Manufacture
of, 286
Anthraquinone, Recovery and Purification of, 9
Anthraquinone Series, Condensation
Product of the, 177
Anthraquinones, Ortho-Ortho-Dicarboxyl Diphenyl Diamino, Process
of Preparing, 9
Apparatus, Catalytic, 388
Azo Dyestuffs, Manufacture of, 135
Barium Compounds, Manufacture of, 33
Barium Compounds, Manufacture of, 36
Barium Perovide, Manufacture of, 155

33
Barium Peroxide, Manufacture of, 155
Barium Sulphate, 314
Barium Sulphide, 338
Base-exchanging Silicates 576
Bases, Organic, Production of, and
Pest Destroying Agents, 89
Benzaldehydes, 3-Alkoxy-4-Hydroxy-,
and Derivatives thereof, Production
of, 265

of, 265 Benzanthrone Derivatives, 244

Benzene, Naphthalene, and Acenaph-thene Series, Manufacture of Deriva-tives, 155

tives, 155

Benzene Series, Chlorinated Compounds of the, 33

Benzenes, Vic-Trihalogen, Manufacture of, 387

Betaine Thiocyanate, Manufacture of, 223

Reaching Park

Bleaching Powder, Manufacture of, 293
Butadiene, Production of, 156
Butyl Alcohol and Acetone, Production of, by Fermentation, 407

tion of, by Fermentation, 707 23-Butyleneglycol, 244 Calcium Cyabide, 576 Calcium Hypochlorite, Manufacture of, 202, 243, 532 Calcium Phosphates, 314 Calcium Sulphate, Preparation of 387

Calcium Sulphate, Preparation of 387
Carbon and Hydrogen Chloride, Production of, 243
Carbon Bisulphide, 179
Catalysts, 224
Catalysts for the Production of Methanol and Higher Alcohols,, Manufacture of, 202
Catalysts for Production of Ketones, 286

Catalysts for Production of Ketones, 266
Catalysts, Regenerating, 244
Catalyste Agents, 136
Catalytic Apparatus, 10
Catalytic Apparatus, 10
Catalytic Processes, 90
Catalytic Conversion of Mixtures of Carbon Monoxide and Hydrogen Into Organic Compounds Containing More Than One Carbon Atom, 57
Catalytic Reactions, 156, 177
Cellulose Esters, 628
Cellulose, Saccharitying, 244
Coal Gas Purification, 388, 407
Colloidal Iodine, 576
Compounds, Organic, Tom Oxides of Carbon and Hydrogen, Production of, 293
Concentrating Acids, 314
Condensation Products of the Benzanthrone Series, Manufacture of, 293, 407
Condensation Products of Cyananthe and Formaldehyde, Manufacture of and Formaldehyde, Manufactures

Condensation Products Water Soluber, So

## atent Specifications-continued

Dioxane, Homologues of, Production of, 337

Dioxane, Homologues of, Production of, 337
Dioxide and Derivatives thereof, Dinaphthylene, Process for the Manufacture of, 265
Diphenyl, 114
Dispersions, Aqueous, of Organic Materials such as Rubber or the like, Treatment of, 428
Dyelng, 552
Dye Intermediates, 10, 34, 179, 266, 294, 533, 576
Dyes, 10, 34, 58, 90, 114, 136, 156, 223, 224, 244, 266, 294, 295, 337, 362, 428, 480, 576
Dyes and Dyeing, 533
Dyes and Lakea, 533
Dyes and Lakea, 533
Dyes Azo, and Their Application, 113
Dyes, Trisazo, 428
Dyes, Xanthen, Process for the Manufacture of, 135, 551
Dyes and Intermediates, 90, 136, 156, 178, 203
Dyestuffs, Production of, 155, 407, 551
Dyestuffs, Azo, Manufacture of, 265, 266, 387
Dyestuffs, Azo, forming Metallic Saits, Manufacture of, 265
Dyestuffs, Nitrogenous, 113
Dyestuffs, Nitrogenous Vat, Production of, 113, 313
Dyestuffs, Polyazo, Manufacture of, 479
Dyestuffs, Polyazo, Manufacture of, 90yestuffs, Polyazo, Manufacture of, 19yestuffs, Polyazo, Manufacture of, 90yestuffs, Polyazo, Manufacture of, 90yestuffs, Polyazo, Manufacture of, 90yestuffs, Manufacture of Sulphur.

Dyestuffs, Polyazo, Manufacture of, 479
Dyestuffs, Manufacture of Sulphur, 177, 243, 428
Dyestuffs, Vat, Production of, 135, 202, 532
Dyestuffs, Vat, of the X'Naphthoquinone Series, Manufacture of, 293
Drugs, Synthetic, 178, 203, 362, 479, 533, 534, 576
Electrolysis, 136, 338
Esters, Manufacture of, 113
Esters, Processes for the Production of, 428
Esters, Sulphonated Compounds, 294
Esters, Unsaturated, 178, 314
Ethyl Acetoacetate and other Esters, 58

Ethyl Acetoacetate and other Esters, 58
Fatty Acids, Sulphonating, 90
Ferric Oxide and Chlorine, 178
Ferric Oxide, Manufacture of Finely Divided, 89
Ferricyanides, 224
Ferrocyanide of Potassium formed in the Purification of Gases by Oxidation of Hydrogen Sulphide with Ferricyanide of Potassium, Electrolytic Revivification of, 387
Fertilisers and Hydrocarbons from Coal and Other Carbonaceous Material, Production of, 314
Fertilisers, Ballast Free Solid, containing Lime, 135
Fertilisers, 90, 178, 202, 314, 361, 576
Fertilisers, Mixed, Production of, 155
Fluorine, 266
Fornic Acid, Distilling, 510
Gas-containing Sulphuretted Hydro-

Fluorine, 266
Formic Acid, Distilling, 510
Gas-containing Sulphuretted Hydrogen, Purification of, 387
Gases containing Carbon Monoxide,
Method of Operating with at Elevated Temperatures, 89
Gases, Desulphurisation of, 9
Gases, Sulphurous, Catalytic Oxidation of, 628
Granular Form, Materials in, 113
Guanidine Compounds, 294
Hydrocarbons, Chlorination of, 552
Hydrocarbons, Cracking, 575
Hydrocarbons, Production of, 9, 202, 244, 294, 337, 533, 628
Hydrocarbons and Phenole, 338
Hydrocarbons of Low Boiling Point,
Production of, 575
Hydrocarbons, Desulphurisation of, 155
Hydrocarbons, Ussaturated, Produc-

155
Hydrocarbons, Unsaturated, Production of, 155, 177, 266
Hydrocarbons, Synthesis of, 114
Hydrochloric and Hydrobromic Acids,

114 114
Hydrogenation, Destructive, 136, 156, 178, 224, 628
Hydrogenation, Destructive, of Solid Carbonaceous Material, Process for,

## Patent Specifications

Lead Oxide, Production of, 185 Lead, White, 224 Lime, Chloride of, Manufacture of, 813 Lyes, Akali, Regenerating, 224 Magnesia from Dolomite, Production of, 294

Lyes, Alkan, Regenerating, 224
Magnesium Carbonate, 628
Magnesium Carbonate, 628
Magnesium Cyanide and its Compound
with Ammonia, Production of, 89
Mangases Dioxide, 34
Metallic Oxides, Teating, with Hydrocarbons, 155
Metallic Oxides, 34
Naphthalene Derivatives, Manufac.
ture of, 155
C. Naphthylamine, Production of Acid
Sulphate of, 135
N. Dihydro-1: 2: 21: 11-Anthraquinone-Axine and Derivatives thereof
fast to Chlorine, Production of, 552
Nitric Acid, Concentrated, from Weak
Solutions, Production of, 510
Nitric Acid, Concentrating, 243
Nitric Acid, Preparing by the Catalytic Combustion of Ammonia, with
Oxygen or Gases Rich in Oxygen,
407
Nitro Compounds, Aromatic, Reduction of, 113
Nitrogan, Hydrogen, Ammonia and
Methanol, 203
Nitrous Gases, Dilute, Absorption of,
223
Oils and the like, Distilling and Crack-

923
Oils and the like, Distilling and Cracking by Contact with Salt or Metal Melts, Process and Apparatus for,

Melts, Process and Apparatus for,
453
Olefines and Diolefines, Gaseous and
Low Boiling, from Bituminous Coal,
Tars, Minerai Oils, etc., 58
Olefines and other Hydrocarbons,
Production of, 532
Olefines, Polymerisation of, 33
Olefferous Residues, Treating, 628
Organic Acids and Esters, Production
of, 575
Organic Acids, Recovery of, from the
Oxidation Products of Paraffin
Hydrocarbons, Waxes, etc., 177
Organic Compounds, 533
Organic, Oxygenated, Compounds,
Production of, 293
Ortho-Carboxyamido Arylthioglycollic Acids, Manufacture of, 362
Oxygen, Active, Compounds Containing, 223
Oxygen, Active, Compounds Containing, 223
Oxygen Compounds, Organic, 479

ing, 223
Oxygen Compounds, Organic, 479
Per-Salts, Obtaining, 429
Phenols and Cyclohexanols, 575
Phosphate, Leaching, 135
Phosphoric Acid, Process for the Manufacture of, 313, 534
Phosphoric Acid; Calcium Sulphate,

Phosphorus and Hydrogen, 575
Phosphorus Chlorides, 114
Pigments and the like, Preparation of

361
Polymerisation Products, Liquid, from Gases containing Hydrocarbons, Processes for the Production of, 265

Processes for the Production of, 265
Potash Saits, 34
Potash Saits, Working up, 113
Potassium, Manufacture of, 243
Potassium Saits, 314
Propionic Acids, β-Aryl-α-Amino, and their Substitution Products, Process for the Manufacture of, 407
Pyri-dine Compounds 114
Pyri-dines and Thiophenes, 295
Reactions, Chemical, Effecting, in Gases by means of electrical discharges, 266, 293
Reactions, Chemical, Carrying out, in Closed Vessels, 225
Reactions, Gas, Carrying Out, 294
Reactions, Gaseous Dehydrating, Effecting, 243
Resins, Synthetic, 223, 294, 388
Rubber, Artificial, Manufacture and Production of, 9, 38, 203, 244, 313, Bubber, Preserving, 114
Rubber, Preserving, 114

Rubber, Preserving, 114

Rubber, Synthetic, 630 Rubber, Vulcanised, Production of, Rubber Latex, Preservation of, 337

Patent Specifications-e

Secondary Diazo Amino Compounds, Water Soluble, and Azo Dyestuffs therefrom, Manufacture of, 582 Soaps, Alkali, including Ammonium Soap and the Fatty Acid Obtained therefrom, Process for the Production of, 551 Sodium Acetate, Anhydrous, Production of, 83 Sodium Nitrate, 244 Sodium Perborate, 114 Sodium Perborate, 114 Sodium Perborate, 114 Sodium Sulphate and Bisulphite, 388 Solids, Granular, Obtaining, 479 Sulphur and Carbon Bisulphide, 10 Sulphur and Carbon Bisulphide, 10 Sulphur Compounds from Gases, Eliminating, 532 Sulphuric Acid, 362, 533 Sulphuric Acid Manufacture, Catalytic, 224

Sulphur, Purification of Crude or Impure, 113
Tar, Low Temperature, and its Distillates, Separating the Constituents of, 313
Thiazole Derivatives, 10
Thioureas, Tri-substituted, 203
Thymol, 114
Titanian Hydroxide, 10
Titanium Pigments, Manufacture of, 177
Towers, Acid Concentration, and Trivers.

177
Towers, Acid Concentrating and like, 453
Urea, 203
Vamilin, 576
Varnishes and Plastics, 362
Waxes, Purifying, 628
Xanthones, 3: 7-Tetra-Alkyldiamino-, 125 Yellow Ferric Hydroxide, Manufac-

ture of, 552
Zinc Ores, Treating, 34
Zinc Oxide, 114
Zirconium Oxide, 203

Zirconium Oxide, 203
Patent Office Salaries, 372
Patent System, British, Chemical Industry and the, 260
Patent Literature, Changes in, 348
Patents Committee, The, 380
Patents, Dr. Levinstein on Chemical, 323, 329
Perkin, Professor W. H., 254, 257, 289, 547

547
Peru's Guano Trade, 355
Petroieum and Petroleum Gases, Chemicals from, 545
Phosphate Fields in French Morocco, New, 249
Physical Society, 339
Plant Discases, Chemistry and, 528
Plant Manufacturers, Chemical, Progress

among, 608
Platinum Substitute, A, 307
Poisoning, Industrial, in 1928, Cases of,

128
Polish Sulphuric Acid Manufacture, 271
Polish Sulphuric Acid Requirements,
Increase in, 367
Polish Trade in Coal Tar Products, 468
Potash from Polyhalite and Greensands,
357

rotash from Polyhalite and Greensands, 357 Potssh, Spanish, Exploitation, 30 Potssh, U.S. Production of, 30 Pottery Combine, 29 Power Alcohol Production in Australia, 416

416
Power Station Fumes, 109, 240
Printing Inks, 526
Printing Trade, Chemistry in the;
F. J. Tritton, 470
Producer Gas Plant, Competitive Exhibition of, 183
Pyrites, Australian Production of, 318

Badiator Contents, Precautions Against Freezing of, 514 Radium in Australia, 287 Radium Merger, 6 Badium Supplies, 304 Ramsay Memorial Fellowships, 54 Ramsay Memorial Fellowships, 54 Rationalisation with Reference to the Chemical Industry, 325, 347, 349 Red Oxide from the Persian Gulf, 384 Research Salaries, 324

Allen's Commercial Organic Analysis Allen's Commercial Organic Analysis 129
Anorganische und Organische Entfarbungsmittel (Singer), 29
Applied Chemistry, Reports on the Progress of, 29
Betriebsmittelkunde für Chemiker (Doich), 217
Ceramic Industries Encyclopsodia of the (Searle), 474
Chemiker, Das Buch der Grossen, 129
Chemist's Year Book, 29
Crystal Structure and Chemical Constitution, 217
Elder Pliny's Chapters on Chemical Subjects (Bailey), 474
Glue and Gelatine (Smith), 29
Hydrogen Ions (Britton), 474
Industrial Chemistry (Barclay), 217
Law and Industry (Marlow), 474
Organic Syntheses, 129
Petroleum and Its Products, Standard Methods of Testing, 29
Plant Products, An Introduction to the Chemistry of (Bass and Hill), 129
Pocket Book for Chemists, A (Bayley), 474
Pyrolysis of Carbon Compounds, The

474
Pyrolysis of Carbon Compounds, The (Hurd), 129
"Soul of Manchester" (Brindley), 26
Technical Dictionary of Engineering and Industrial Science, 217

and Industrial Science, 217
Ridcal, Sanuel: An Appreciation, 525
Rotary Club of Chester, 221
Royal Society Medalliste, 447
Russian Chemical Industry, Theorem Chemical Industry, Theorem of the 75
Russian Potash Production, 142
Ruston and Hornsby and the
Bucyrus-Eric Co. 302

Safeguarding The Future of, 2, 83
Safeguarding of Industries Act, 18, 171,
259, 476
Safety Measures in Chemical Industry,
377
Salaried Inventor, Problem of the; R.
Brightman, 399
Salesmanship, Better British, 79
Salesmanship, Bette

289 289 Scandinavia as a British Market; Sir Ernest Benn, 448 Scottish Agricultural Industries, 212 Scottish Coal Tar Products during 1929, Sec

Sewage Sludge, Power from, 289
Sewage, The Analysis of, 324, 328
Sewage, Fower tas from, 581
Shale Oil, Cracking, 436
Shale Oil in Australia, 436
Shawinigan Stainless Steel and Alloys,
Ltd., 169
Shipping, Engineering and Machinery
Exhibition, 238
Soap Mast Explosion Hazards, 220
Slosson, Dr. E. E., 418
Soap Manufacture in Canada, 290
Society of Chemical Industry:
Annual Meeting, 19, 21, 43, 45
Birmingham and Midland, 474, 545
Biritol, 329
London, 330, 423, 528
Manchester, 331, 420, 546
Nottingham, 567
Society of Dyers and Colourists, 383, 420, 473, 623
Society of Glass Technology, 546, 623
Society of Glass Technology, 546, 623
Society of Glass Technology, 546, 623
Society of Fublic Analysts, 333, 450, 547
Soda Crystals, Government Department
Specifications for, 446
Solvents Institute Founded in U.S., 603 Sewage Sludge, Power from,

Solvents Industry, The Year's Progress in the, 605 tuth African Markets, British Goods for, 73 South Africa, Chemicals, for, 632 South Africa, Sale of Foods and Drugs in, 151

26m Generation, The Science of, 30
Steel Structures, D.S.I.R. Investigation
of, 376
Sugar Cane, Rayon Cellulose from, 514
Sulphate of Ammonia, Canadian Production of, 161
Sulphate of Ammonia Prices, 303, 562
Sulphate Process, A New By-Product,
397

Spanish Olive Oil Production, 171 Steam Generation, Low Grade Fuel for,

397
Sulphur and Pyrites Statistics, 42
Sulphur and Pyrites Statistics, 42
Sulphuric Acid Catalysts, 199
Swedish Electrochemical Industry, 390
Swimming Baths, Sterllisation of, 357
Synthetic Ammonia and Nitrates, Ltd,
68, 540

Synthetic Ammonia and Middle, 200, 66, 540
Synthetic Chemistry of the Future,
J. F. Thorpe, 235

Tar, British, for Roads, 440
Technical and Works Control, 546
Tendencies in Modern Industries, 51
Tin, Applications of, 180
Tin Discovery in British Columbia, 174
Tin Producers' Association, Formation
of, 53, 240
Titanium in Tasmania, 232
Titanium Oxide Pigments (Noel Heston), 423 Titanium Oxide Pigments (Noel Heston), 423 Tizard, Mr. H. T., 54, 68 Trade, Colonial Chemical, 67, 70 Trade: Lord Melchett on Empire Trade, 467 Trade Statistics: Plea for Fuller Publication, 322 Trade, Overseas, Mr. Gillett Minister

for, 53
Trade, Overseas Chemical, 44, 143, 437
Trade R-turns: June, 52; July, 147;
August, 253 258; September, 352;
October, 444; November, 564
Tung Oll in Australia, 290
Turpentine, British Standard Specification for, 63

Union Chimique Belge, 462
United Molasses Company's Development, 310
U.S. Insulating Materials Combine, 2
U.S.A. Acetone Exports, 469
U.S. Sulphur Production in 1928, 38
U.S.A. and Chemical Cartels, 166

Vapour Absorption and Adsorption, 548 Vapour Pressures of Oxides, 520 Vauquelin Centenary, The, 462

Water Softening, The Zeolite Process of, water Solvening, the Zeome Process of, 502
Water, The Purification of, by ElectroOsmosils, 305
Water Purification Plant, 50, 357
Water Purification Plant, 50, 357
Waterworks, New, for Canton, 219
Waynflete Professor, New, 449
Weighing, Static Electricity in, 320
Western Viscose Silk Mills, 474
West Hartlepool, 289
Wood Research in Canada, 239
Words, Chemical, Pronunciation of, 290

Yorkshire, Chemical and Allied Indus-tries of, 277 Yorkshire, Technical Education in, 285

Zeolite Process of Water Softening, 502 Zinc Manufacturing Co. 50

